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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/799,934   | 03/12/2004  | Mark Kelly           | 066692-0097         | 6830             |
| 41552  | 7590        | 08/30/2006           | EXAMINER            |                  |
| MCDERMOTT, WILL & EMERY<br>4370 LA JOLLA VILLAGE DRIVE, SUITE 700<br>SAN DIEGO, CA 92122 |             |                      | STEELE, AMBER D     |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 1639                |                  |

DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/799,934 | <b>Applicant(s)</b><br>KELLY ET AL. |  |
|                              | <b>Examiner</b><br>Amber D. Steele   | <b>Art Unit</b><br>1639             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-90 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-90 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Status of the Claims***

1. Claims 1-90 are currently pending.

### ***Election/Restrictions***

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-11, drawn to a method of obtaining a “focused” library via observing, providing, detecting, and obtaining, classified in class 435, subclass 7.1.
  - II. Claims 12, 28, 63, and 82, drawn to a method of identifying a compound via obtaining, assaying, and identifying, classified in class 435, subclass DIG 2.
  - III. Claims 13-14, 29-30, 46, 64-65, and 83-84, drawn to a method of refining a compound, classified in class 435, subclass DIG 14.
  - IV. Claims 15-27 and 31-32, drawn to a method of obtaining a “focused” library via providing, assaying, identifying, observing, and obtaining, classified in class 435, subclass DIG 15.
  - V. Claims 33-45 and 47, drawn to a method of obtaining a binding compound, classified in class 436, subclass 501.
  - VI. Claims 48-62, drawn to a method of obtaining a “focused” library via providing a ligand-probe, providing a samples, detecting, and obtaining, classified in class 435, subclass DIG 46.
  - VII. Claims 66-81, drawn to a method of obtaining a “focused” library via providing a ligand-probe, providing a plurality of samples, assaying, identifying, and obtaining, classified in class 436, subclass 173.

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VIII. Claims 85-86, drawn to a compound, classified in class 536, subclass 1+.

IX. Claims 87-90, drawn to a method of identifying a ligand, classified in class 436, subclass 518+.

3. The inventions are distinct, each from the other because of the following reasons:

A. Inventions I-VII and IX are directed to related processes. The related inventions are distinct if the inventions as claimed do not overlap in scope, i.e., are mutually exclusive; the inventions as claimed are not obvious variants; and the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the process of Group I has a materially different design because the process requires observing competitive binding, providing a sample, detecting a subset of magnetization transfer signals, and obtaining a population of candidate binding compounds wherein the collective steps are not required by any of the other groups. In addition, Group II requires obtaining a “focused” library of candidate binding compounds, assaying the library, and identifying a member of the library wherein the collective steps are not required by any of the other groups; Group III requires identifying a binding compound, obtaining one or more modified forms of a ligand, providing a sample, detecting a subset of magnetization transfer signals, and selecting a modified ligand wherein the collective steps are not required by any of the other groups; Group IV requires providing a plurality of samples, assaying a population of candidate ligands, identifying a ligand, observing competitive binding, and obtaining a population of candidate binding compounds wherein the collective steps are not required by any of the other groups; Group V requires observing competitive binding to a first

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protein, observing competitive binding to a second protein, providing a sample (first protein, first ligand, second ligand), providing a sample (second protein, first ligand, second ligand), comparing the degree of magnetization transfer between the first and second ligand, and obtaining a binding compound wherein the collective steps are not required by any of the other groups; Group VI requires providing a ligand-probe, providing a sample, detecting a subset of magnetization transfer signals, and obtaining a population of candidate binding compounds wherein the collective steps are not required by any of the other groups; Group VII requires providing a ligand-probe, providing a plurality of samples, assaying a population of candidate ligands, identifying a ligand, and obtaining a population of candidate binding compounds wherein the collective steps are not required by any of the other groups; and Group XI requires attaching an antenna moiety, providing a sample, and detecting a subset of magnetization transfer signals wherein the collective steps are not required by any of the other groups. As a result, these different designs have different function and/or effect. Consequently, the related inventions are distinct, i.e. mutually exclusive, and the art anticipating or rendering obvious each of the above-identified groups respectively would not necessarily anticipate or render obvious another group, because they are drawn to different inventions that have different distinguishing features. Therefore, these inventions are distinct, and the restriction between these groups is proper.

B. Inventions VIII (product) and I-VII and IX (processes) are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different

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process of using that product. See MPEP § 806.05(h). In the instant case, the product as claimed can be used in a materially different process of using that product (e.g. a method of making a chemical array).

4. Because these inventions are independent or distinct for the reasons given above and
  - a. have acquired a separate status in the art in view of their different classification (e.g. class and/or subclass; please refer to section 2 above), and/or
  - b. require a different field of search, and/or
  - c. have acquired a separate status in the art because of their recognized divergent subject matter,restriction for examination purposes as indicated is proper. (See MPEP § 808.02).

*Election of Species*

5. This application contains claims directed to the following patentably distinct species of the claimed invention for Groups I, IV-VII, and IX. Election is required as follows.
6. If applicant elects the invention of Group I, the applicant is required to elect a single, specific species from **each** of the following species A-B.
  - A. species of how the first ligand is identified (please refer to claims 2 and 4)

Applicant must elect, for the purposes of search, a **single, specific species** of how the first ligand is identified.
  - B. species of NOESY spectrum (please refer to claims 9-10)

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Applicant must elect, for the purposes of search, a **single, specific species** of NOESY spectrum.

Claim 1 is generic to the species listed above. The species are independent or distinct because the structure and/or functions are different. In addition, it would necessarily be unduly burdensome to search each of the above species of the presently claimed invention since it would entail different and separately burdensome manual/computer bibliographic searches in the patent and nonpatent literature databases and/or additionally a reference against one species may not necessarily anticipate or render obvious the other and/or the different species may elicit different issues under 35 U.S.C. 112.

7. If applicant elects the invention of Group IV, the applicant is required to elect a single, specific species from **each** of the following species A-B.

A. species of how the first ligand is identified (please refer to claims 17, 19-20, and 31)

Applicant must elect, for the purposes of search, a **single, specific species** of how the first ligand is identified.

B. species of NOESY spectrum (please refer to claims 21 and 25)

Applicant must elect, for the purposes of search, a **single, specific species** of NOESY spectrum.

Claim 15 is generic to the species listed above. The species are independent or distinct because the structure and/or functions are different. In addition, it would necessarily be unduly burdensome to search each of the above species of the presently claimed invention since it would entail different and separately burdensome manual/computer bibliographic searches in the patent and nonpatent literature databases and/or additionally a reference against one species may not necessarily anticipate or render obvious the other and/or the different species may elicit different issues under 35 U.S.C. 112.

8. If applicant elects the invention of Group V, the applicant is required to elect a single, specific species from **each** of the following species A.

A. species of how the first ligand and second ligand are linked (please refer to claims 39-40)

Applicant must elect, for the purposes of search, a **single, specific species** of how the first ligand and the second ligand are linked.

Claim 33 is generic to the species listed above. The species are independent or distinct because the structure and/or functions are different. In addition, it would necessarily be unduly burdensome to search each of the above species of the presently claimed invention since it would entail different and separately burdensome manual/computer bibliographic searches in the patent and nonpatent literature databases and/or additionally a reference against one species may not necessarily anticipate or render obvious the other and/or the different species may elicit different issues under 35 U.S.C. 112.



9. If applicant elects the invention of Group VI, the applicant is required to elect a single, specific species from **each** of the following species A-C.

A. species of number of antenna moieties attached to the ligand (e.g. singular or plurality; please refer to claims 49 and 52)

Applicant must elect, for the purposes of search, a **single, specific species** of number of antenna moieties attached to the ligand.

B. species of how binding of the ligand-probe is identified (please refer to claims 55 and 58)

Applicant must elect, for the purposes of search, a **single, specific species** of how binding of the ligand-probe is identified.

C. species of NOESY spectrum (please refer to claims 61 and 62)

Applicant must elect, for the purposes of search, a **single, specific species** of NOESY spectrum.

Claim 48 is generic to the species listed above. The species are independent or distinct because the structure and/or functions are different. In addition, it would necessarily be unduly burdensome to search each of the above species of the presently claimed invention since it would entail different and separately burdensome manual/computer bibliographic searches in the patent and nonpatent literature databases and/or additionally a reference against one species may not necessarily anticipate or render obvious the other and/or the different species may elicit different issues under 35 U.S.C. 112.

10. If applicant elects the invention of Group VII, the applicant is required to elect a single, specific species from **each** of the following species A-C.

A. species of number of antenna moieties attached to the ligand (e.g. singular or plurality; please refer to claims 67 and 70)

Applicant must elect, for the purposes of search, a **single, specific species** of number of antenna moieties attached to the ligand.

B. species of how binding of the ligand-probe is identified (please refer to claims 72-73 and 76)

Applicant must elect, for the purposes of search, a **single, specific species** of how binding of the ligand-probe is identified.

C. species of NOESY spectrum (please refer to claims 80 and 81)

Applicant must elect, for the purposes of search, a **single, specific species** of NOESY spectrum.

Claim 66 is generic to the species listed above. The species are independent or distinct because the structure and/or functions are different. In addition, it would necessarily be unduly burdensome to search each of the above species of the presently claimed invention since it would entail different and separately burdensome manual/computer bibliographic searches in the patent and nonpatent literature databases and/or additionally a reference against one species may not necessarily anticipate or render obvious the other and/or the different species may elicit different issues under 35 U.S.C. 112.

11. If applicant elects the invention of Group IX, the applicant is required to elect a single, specific species from **each** of the following species A.

A. species of NOESY spectrum (please refer to claims 89 and 90)

Applicant must elect, for the purposes of search, a **single, specific species** of NOESY spectrum.

Claim 87 is generic to the species listed above. The species are independent or distinct because the structure and/or functions are different. In addition, it would necessarily be unduly burdensome to search each of the above species of the presently claimed invention since it would entail different and separately burdensome manual/computer bibliographic searches in the patent and nonpatent literature databases and/or additionally a reference against one species may not necessarily anticipate or render obvious the other and/or the different species may elicit different issues under 35 U.S.C. 112.

12. Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

13. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and **a listing of all claims readable**

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**thereon, including any claims subsequently added.** An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

14. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

14. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention. Because the above restriction/election requirement is complex, a telephone call to applicant to request an oral election was not made. See MPEP § 812.01.

16. The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

17. Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In

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either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

18. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

19. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. Process claims that depend from or otherwise include all the limitations of the patentable product will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all the criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper

restriction requirement between product claims and process claims may be maintained.

Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai*, *In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. Failure to do so may result in a loss of the right to a rejoinder. Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

#### ***Future Communications***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amber D. Steele whose telephone number is 571-272-5538. The examiner can normally be reached on Monday through Friday 9:00AM-5:00PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Paras can be reached on 571-272-4517. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ADS

August 22, 2006

  
My-Chau Tran  
Patent Examiner  
AU1639